

Abstract of the Disclosure

An apparatus is provided for concurrently detecting a plurality of physical quantities to be detected. The apparatus comprises plural sensing units, plural processors, and controller. The sensing units are
5 formed on the same substrate to form a single sensor. Each sensing unit senses each physical quantity to output a voltage signal changing depending on each physical quantity sensed. Each of the processors samples and holds, at a predetermined frequency, the voltage signal outputted by each of the sensing units. Hence sampled and held
10 voltage signals are produced and outputted from the apparatus as information indicative of the plurality of physical quantities. In the sampling and holding processing, a controller controls the plural processors so that the processors perform sampling operations at predetermined different phases shifted from each other during an
15 interval defined by the predetermined frequency.